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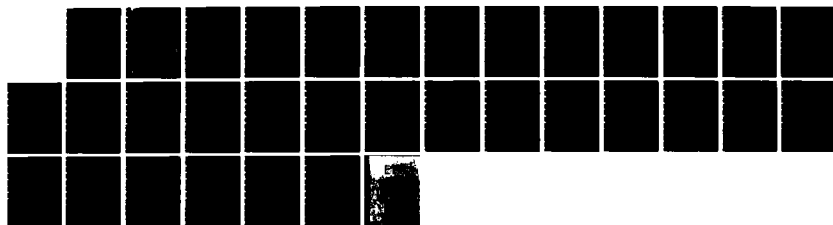
EFFECTS OF APPRAISAL SALIENCE ON IMMEDIATE AND
MEMORY-BASED JUDGMENTS(U) HAWAII UNIV HONOLULU DEPT OF
PSYCHOLOGY J L BARNES-FARRELL ET AL. MAR 84 TR-84-1
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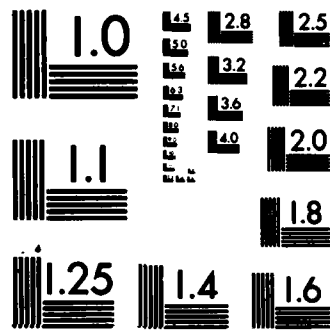
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Janet L. Barnes-Farrell and Karen A. Couture

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In this study we investigated the effects of appraisal task salience and retention interval upon the accuracy of performance ratings. Subjects viewed videotaped samples of employee performance and provided performance ratings of the behavior of the target individual depicted in the videotapes. In addition, the accuracy with which subjects remembered what behaviors had been seen in the tapes was assessed with a behavior checklist. The salience of the performance appraisal task was manipulated by (cont'd)

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20. Abstract.

informing some subjects that they would be evaluating an employee's performance and by familiarizing them with the rating instrument prior to observation of the tape; other subjects were not informed of the appraisal task or familiarized with the rating scales until after observation of the tape. Retention of the observed behavioral information on the tapes was manipulated by varying the time lag between the viewing of the tapes and the completion of the performance rating scales and behavior checklist. Analyses of variance and followup t-tests indicated no main effects for appraisal salience or retention interval on overall accuracy of rating or elevation scores. However, a significant two-way interaction between appraisal salience and retention interval was observed for overall accuracy and elevation. Further investigation showed that subjects primed for the appraisal task were more accurate than subjects in the low appraisal salience condition, when ratings were made a week after observation of performance. Also, decreases in accuracy as retention interval increased were observed when the salience of the appraisal task was low. In addition, it was found that memory for behaviors observed decreased as retention interval increased, but it was not affected by appraisal salience. The implications of these findings for performance appraisal and for the design of appraisal research are discussed.

Effects of Appraisal Salience on Immediate and
Memory-Based Judgments

Janet L. Barnes-Farrell
University of Hawaii

and

Karen A. Couture
Purdue University

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Department of Psychology
University of Hawaii

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ABSTRACT

In this study we investigated the effects of appraisal task salience and retention interval upon the accuracy of performance ratings. Subjects viewed videotaped samples of employee performance and provided performance ratings of the behavior of the target individual depicted in the videotapes. In addition, the accuracy with which subjects remembered what behaviors had been seen in the tapes was assessed with a behavior checklist. The salience of the performance appraisal task was manipulated by informing some subjects that they would be evaluating an employee's performance and by familiarizing them with the rating instrument prior to observation of the tape; other subjects were not informed of the appraisal task or familiarized with the rating scales until after observation of the tape. Retention of the observed behavioral information on the tapes was manipulated by varying the time lag between the viewing of the tapes and the completion of the performance rating scales and behavior checklist.

Analyses of variance and followup t-tests indicated no main effects for appraisal salience or retention interval on overall accuracy of rating or elevation scores. However, a significant two-way interaction between appraisal salience and retention interval was observed for overall accuracy and elevation. Further investigation showed that subjects primed for the appraisal task were more accurate than subjects in the low appraisal salience condition, when ratings were made a week after observation of performance. Also, decreases in accuracy as retention interval increased were observed when the salience of the appraisal task was low. In addition,

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Effects of Appraisal Salience on Immediate and

Memory-Based Performance Judgments

One of the major shortcomings of the current literature on performance evaluation is that research paradigms have not adequately represented the memory-based nature of the appraiser's task. Although we recognize that much of the information that an observer collects is forgotten over time, we do not know the degree to which such processes as attention, recall, and evaluation may be influenced systematically by characteristics of the appraisal system or the appraisal process.

Memory-Based Appraisal Tasks

Most laboratory research on performance appraisal has been conducted using some variation on the following theme: subjects serving as raters are exposed to a sample of employee performance and immediately thereafter are asked to provide evaluations of the target individual's performance. On the other hand, appraisers in organizational settings rarely have the luxury of completing evaluations immediately after observation. Their task typically requires the storage and later (often much later) recall of performance information acquired during the course of their daily interactions with employees. Finally, this information is translated into an appraisal (Ilgen & Feldman, 1983). As a result, much of our knowledge about the appraisal process is knowledge about a process that is only vaguely similar to the real world setting. Therefore, much work needs to be done insuring that memory-based judgments are required in investigations of the appraisal

process. Some of this work has recently been done by social psychologists (cf. Hamilton, Katz, & Lierer, 1980; Lingle, Geva, Ostrom, Leippe, & Baumgardner, 1979). Much more is needed.

Appraisal Salience

Characteristics of the appraisal task, such as the purpose of the evaluation, the salience of the appraisal task, the availability of prior information about the ratee, and the presence of competing tasks, may have little influence on performance ratings when the appraiser is not required to store observations about employee performance and recall them at a later point in time. They may take on increasing importance as the opportunity to forget comes into play. For example, Lingle and his colleagues (Lingle, et al., 1979; Lingle & Ostrom, 1979) found that the recall of information about others was significantly influenced by the set created in the rater by the experimenter. Similarly, Hamilton, et al. (1980) found that the ability of individuals to recall descriptions of other individuals was affected by the purpose for which the people believed the information was to be used. The research we will present here deals, in a very basic way, with the effects of one aspect of the appraisal process -- task salience -- on immediate and memory-based performance judgments.

When appraisers acquire information about employee performance, the ultimate goal of performance appraisal typically is not salient to them. Instead, information is often acquired serendipitously in the context of performing other managerial duties. Under these conditions, the kinds of information attended to and stored are likely to be different than they would be if performance appraisal were the major focus of information

gathering. Ambiguity about which information is important and how it should be stored may introduce "noise" which clearly may have implications for the accuracy of performance evaluations completed at a later point in time. We would expect that appraisals made by raters for whom the appraisal task was highly salient during the observation of employee performance would be more accurate than appraisals made by raters who were unaware of the ways in which performance information might be utilized. Research on the communication process (Zajonc, 1960) supports the notion that the apparent purpose of information acquisition can serve to cognitively "tune" the observer to the use of different or more complex cognitive structures. If raters are aware of the rating task ahead of them, they should be more likely to store information in terms of the performance dimensions relevant to the appraisal.

If the retention interval is fairly short, the categories used to store information will probably be of no major consequence, since the appraiser can access all of the observed information --i.e. forgetting has not yet occurred. However, if the retention interval is long enough to require storage in long-term memory, the manner in which information is stored becomes important. Several researchers have pointed out that once observations about an individual have been categorized, the individual "becomes" the category system; details unique to the stimulus person are not retained (cf. Wyer & Srull, 1979). Furthermore, details belonging to the category but not to the person will be erroneously recalled (Cantor & Mischel, 1977). If we look at this from the perspective of accuracy in performance appraisal, it should be important that employee performance be

stored in categories that correspond as closely as possible to the categories which will be used for the evaluation task. In other words, it is not how much information is retained that is important, but which information is retained.

In this study, the salience of performance appraisal during performance observation was manipulated. In addition, retention interval was varied, for two reasons. First, as we pointed out earlier, memory-based judgments provide a truer representation of the appraiser's task in a real world setting. We also felt that it was important not only to incorporate memory-based judgments in our design, but to assess the effect of incorporating memory on the kinds of conclusions we might draw.

Hypotheses

On the basis of our prior discussion, we would argue that when the purpose of information gathering is unclear, there is a greater chance that noise (with respect to the evaluation) will be incorporated in the evaluation than when the purpose is salient and clear. This effect should be more pronounced when the evaluation requires that the appraiser make memory-based judgments. Thus, the following hypotheses are offered.

Hypothesis 1. Appraisal Salience and Retention Interval will have a significant interactive effect on the accuracy of performance ratings. Performance ratings made when the appraisal task is of high salience will be more accurate than performance ratings made when the appraisal task is of

low salience to the rater, for judgments which are memory-based. This effect is not expected to occur when judgments are made immediately after observation.

Hypothesis 2. Retention Interval will have a significant main effect on the accuracy of performance ratings. Memory-based judgments (judgments made one week after observation) will be less accurate than ratings made immediately after observation.

Hypothesis 3. Retention Interval will have a significant main effect on the percentage of observed behaviors correctly recalled. The percentage of observed behaviors correctly recalled will be significantly higher immediately after observation than it will be after a one week retention interval. The percentage of behaviors correctly recalled is not expected to interact with Appraisal Salience, since it represents the amount of information correctly retained rather than the content of the information retained.

Method

Subjects. Subjects for this study were 74 students recruited from a large university. Subjects were paid \$3.00 for their participation in a two-session study.

Overview of procedure. Subjects were asked to watch a videotape of a company employment recruiter performing his job. Either immediately (10

DELAY condition) or one week later (DELAY condition), they were asked to provide performance ratings of the target individual observed, and to complete a questionnaire which contained a checklist of behaviors that may have occurred in the videotaped performance sample.

Materials. Videotapes developed by Borman (1977) depicting the performance of an employment recruiter were used as the stimulus materials in this study. These were chosen because the development of these videotapes featured the identification of "true score" measures of performance level on each of six relevant dimensions. Two tapes were used, one depicting highly effective performance, and one depicting ineffective performance. The tape shown during each experimental session was randomly selected. Pilot testing indicated that the level of performance depicted in the tape did not affect the accuracy of performance ratings. In addition, the behaviorally anchored rating scales developed by Borman in conjunction with these videotapes were used to rate the performance of the employment recruiter.

Design. Two independent variables were manipulated in a 2 x 2 between groups analysis of variance design. Two levels of Appraisal Salience were created. In the high salience condition (HIGH SAL), subjects were told that they would be watching a film depicting an employment recruiter performing his job, and that their task would be to evaluate the employee's performance. The performance dimensions relevant to the job were outlined, and subjects were shown the rating scales that they would be using for the evaluation. In the low appraisal salience condition (LOW SAL), subjects were not informed that performance appraisal would be one of their tasks,

and they were not shown the rating scales prior to their viewing of the videotaped performance sample. The second independent variable, Retention Interval, was manipulated by having subjects complete their performance ratings and behavior checklists either immediately (NO DELAY) or one week (DELAY) after viewing the videotape of worker performance. Subjects were randomly assigned to one of the four resulting cells of the design. It should be noted that there was some attrition in the DELAY condition.

Dependent variables. Dependent variables in this study were rating accuracy and memory for behavior. Rating accuracy was operationalized in terms of differences between the ratings assigned by subjects and the true scores developed by Borman (1977). Cronbach's (1955) measure of Overall Accuracy and the Elevation component of Overall Accuracy were both computed. To measure memory for behaviors that occurred in the videotape shown, a behavior checklist was developed. A list of 42 behaviors, some of which occurred in each of the films, some of which did not occur, was presented to subjects, and they were asked to check whether each behavior had occurred in the videotape they watched. Each response was scored as a hit or a miss, and a Behavior Memory score was computed for each subject which represented the percentage of responses which were hits.

Data analysis. A 2 x 2 ANOVA was performed to test the effect of Appraisal Salience and Retention Interval on each of the dependent variables described above: Overall Accuracy, Elevation, and Behavior Memory.

Results

Sample size. There was some subject attrition in the DELAY groups, since not all subjects returned to complete the second session. This resulted in unequal cell sizes in the experimental design. However, subject attrition was approximately equal for the high and low appraisal salience conditions. Final cell sizes on which the results reported here are based are presented in Table 1.

Overall Accuracy. A summary of the ANOVAs performed can be seen in Table 2. Examination of Table 2-I shows that neither Appraisal Salience nor Retention Interval exhibited a significant main effect on the Overall Accuracy of performance ratings. However, as predicted, a significant interaction between Appraisal Salience and Retention Interval was observed ($F = 4.70$, $df = 1,48$, $p < .05$), so the cell means were examined. These are displayed in Table 3. T-tests within conditions indicated that Appraisal Salience affected the Overall Accuracy of ratings gathered after a one week delay ($t = -2.55$, $df = 17$, $p < .05$). Ratings were significantly less accurate when appraisal was not a salient task during the observation of performance. There was no significant difference in the accuracy of ratings gathered under low and high appraisal salience conditions when those ratings were gathered immediately after observation. It was also found that Retention Interval significantly affected the Overall Accuracy of performance ratings gathered when the appraisal task was of low salience to the rater during performance observation ($t = 2.23$, $df = 22$, $p < .01$). As

might be expected, ratings gathered one week after performance observation were significantly less accurate than ratings gathered immediately after observation. This effect was not seen when the appraisal task was of high salience during performance observation.

Elevation. In Table 2-II, it can be seen that, as with Overall Accuracy, no significant main effects for Appraisal Salience or Retention Interval on Elevation were seen, but a significant interaction was observed ($F = 4.30$, $df = 1,48$, $p < .05$). Cell means, displayed in Table 4, were compared using univariate t-tests. None of the differences between means were significantly greater than zero.

Behavior Memory. As predicted, Retention Interval exhibited a significant main effect on Behavior Memory scores ($F = 5.81$, $df=1,48$, $p < .05$, see Table 2-III). Behavior Memory scores were significantly higher for those who completed the checklist immediately after observation of the videotaped performance (NO DELAY group, $\bar{x} = .78$) than it was for those who completed the checklist after a retention interval of one week (DELAY group, $\bar{x} = .69$). Appraisal Salience did not have a significant main effect on Behavior Memory, nor was there any significant interaction between Retention Interval and Appraisal Salience. Cell means and marginal means obtained for Behavior Memory can be seen in Table 5.

Discussion

The results of our research provide support for Hypothesis 1. For both measures of rating accuracy, Appraisal Salience and Retention Interval had a significant interactive effect.

In the case of Overall Accuracy, the pattern of observations in the interaction is completely consistent with our expectations. Although we have no means of confirming the null hypothesis, we do know that the effect of Appraisal Salience on Overall Accuracy depends upon Retention Interval. Specifically, the only significant difference in accuracy within levels of Appraisal Salience was for the groups making memory-based judgments. For those groups, performance ratings were more accurate when the appraisal task was made salient to raters prior to observation of the stimulus person.

In the case of Elevation, the predicted interaction between Appraisal Salience and Retention Interval occurred. However, the pattern of results within levels of Retention Interval did not conform as closely to our expectations as it did for Overall Accuracy. Subjects in the HIGH SAL groups did not exhibit significantly less Elevation for either immediate or memory-based judgments. If we ignore statistical significance for the moment, and look only at the pattern of means for the four cells, the mean Elevation scores for the HIGH SAL group is lower than those for the LOW SAL group when judgments are made after a one-week interval ($\bar{x} = .61$ and $\bar{x} = .93$ respectively). However, the pattern is reversed for those groups making immediate judgments ($\bar{x} = .85$ and $\bar{x} = .47$), rather than approaching the same level as we would have expected.

Hypothesis 2 was not as well supported. The only time a delay between observation and evaluation was accompanied by a significant decrease in accuracy was within the LOW SAL condition. This occurred for Overall Accuracy, but not for Elevation. Apparently the salience of the appraisal task in HIGH SAL groups served to override the effect of retention interval on rating accuracy.

Finally, support for Hypothesis 3 was found. The amount of information correctly recalled decreased significantly after a one-week retention interval. This is interesting in light of the fact that the main effect for Retention Interval on accuracy was not observed. Furthermore, the interaction between Retention Interval and Appraisal Salience seen for the accuracy measures was not observed when amount of behavioral information correctly recalled was the dependent variable. This is consistent with our previous argument that the content of information retained may be as important as the amount of information retained. Appraisal Salience appears to affect the content of information retained (as indirectly reflected in the accuracy measures) rather than the amount of information retained.

The results of this study have practical implications for both the researcher and the organization. From the perspective of the researcher, it can clearly be seen that this is a case in which a failure to incorporate memory-based judgments into the design of the study would have led to a very different set of conclusions than those based on the observation of subjects required to retain information for a significant period of time before making evaluations of employee performance. So we would conclude that, at least for appraisal salience, and most likely for many other relevant aspects of the appraisal process, retention interval is not a trivial variable. It must not be taken lightly in our research designs. For the organization, the implications of this study are more directly related to appraisal salience and its effect on the accuracy of memory-based performance ratings. Training programs which serve to heighten appraisers' awareness of their task, presented on a frequent basis, might be recommended

as a means of taking advantage of the effect of salience on accuracy. Similarly, the use of controlled behavioral sampling, in which the sole purpose of observation is to gather information for performance evaluation, might be encouraged on the basis of these findings.

Finally, the direction of future research in this domain should be considered. This study was designed as a first step in the investigation of appraisal salience and its effect on performance evaluation. We have demonstrated that, under certain conditions, appraisal salience does affect rating accuracy. The manner in which this occurs is clearly speculative and deserves much more attention. In particular, confirmation that the effect of appraisal salience is primarily an issue of encoding, storage, and recall rather than attentional processes is needed. Once this has been established, the manner in which these processes are affected can be explored in much more detail.

Author Notes

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Requests for reprints should be sent to Janet L. Barnes-Farrell, Department of Psychology, 2430 Campus Road, University of Hawaii, Honolulu, HI 96734.

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Table 1
Number of Subjects per Cell for Data Analyses

<u>RETENTION INTERVAL</u>	<u>APPRAISAL SALIENCE</u>			
	Low Sal	High Sal		
DELAY	8	11	N_{DELAY}	=19
NO DELAY	16	17	$N_{\text{NO DELAY}}$	=30
$N_{\text{LOW SAL}} = 24$ $N_{\text{HIGH SAL}} = 28$ TOTAL N=52				

Table 2
Summary of Analyses of Variance for Overall Accuracy,
Elevation and Behavior Memory

I. Overall Accuracy

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Appraisal Salience (A)	1	.16	.59
Retention Interval (R)	1	.36	1.30
A x R	1	1.53	5.52*
Error	48	.28	

II. Elevation

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Appraisal Salience (A)	1	.18	.44
Retention Interval (R)	1	.10	.25
A x R	1	1.70	4.30*
Error	48	.40	

III. Behavior Memory

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Appraisal Salience (A)	1	.01	.79
Retention Interval (R)	1	.09	5.81*
A x R	1	.00	.02
Error	48	.02	

* $P \leq .05$

Table 3

Effect of Appraisal Salience and Retention Interval
on Overall Accuracy: Cell Means and Standard Deviations^a

<u>RETENTION INTERVAL</u>	<u>APPRAISAL SALIENCE</u>		
	LOW SAL	HIGH SAL	
DELAY	1.83 (S = .57)	1.26 (S = .41)	$\bar{X}_{\text{DELAY}} = 1.50$
NO DELAY	1.26 (S = .37)	1.41 (S = .67)	$\bar{X}_{\text{NO DELAY}} = 1.34$
$\bar{X}_{\text{LOW SAL}} = 1.45$		$\bar{X}_{\text{HIGH SAL}} = 1.35$	

^aNote: Overall Accuracy scores are calculated as deviations from a true score. Therefore, lower scores indicate higher overall accuracy.

Table 4

Effect of Appraisal Salience and Retention Interval
on Elevation: Cell Means and Standard Deviations^a

<u>RETENTION INTERVAL</u>	<u>APPRAISAL SALIENCE</u>		
	LOW SAL	HIGH SAL	
DELAY	.93 (S = .96)	.61 (S = .46)	$\bar{X}_{\text{DELAY}} = .77$
NO DELAY	.47 (S = .33)	.86 (S = .74)	$\bar{X}_{\text{NO DELAY}} = .67$
	$\bar{X}_{\text{LOW SAL}} = .64$	$\bar{X}_{\text{HIGH SAL}} = .76$	

^aNote: Increased Elevation scores are indicative of decreased accuracy.

Table 5

Effect of Appraisal Salience and Retention Interval
on Behavior Memory: Cell Means and Standard Deviations

<u>RETENTION INTERVAL</u>	<u>APPRAISAL SALIENCE</u>		
	LOW SAL	HIGH SAL	
DELAY	.67 (S = .13)	.71 (S = .15)	$\bar{X}_{\text{DELAY}} = .69$
NO DELAY	.77 (S = .09)	.79 (S = .10)	$\bar{X}_{\text{NO DELAY}} = .78$
$\bar{X}_{\text{LOW SAL}} = .73$		$\bar{X}_{\text{HIGH SAL}} = .76$	

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NAVY MISCELLANEOUS

Naval Military Personnel
Command
HRM Department (NMPC-6)
Washington, DC 20350

(2 Copies)

Chief of Naval Education &
Training (N-5)
Director, Research Development
Test and Evaluation
Naval Air Station
Pensacola, FL 32508

Naval Training Analysis &
Evaluation group
Orlando, FL 32813

LIST 9
USMC

HQ, U.S. Marine Corps
Code MPI-20
Washington, DC 20380

Education Advisor
Education Center (EO31)
MCDEC
Quantico, VA 22134

HQ, U.S. Marine Corps
ATTN: Scientific Adviser,
Code RD-1
Washington, DC 20380

LIST 10
OTHER FEDERAL GOVERNMENT

Dr. Brian Usilaner
GAO
Washington, DC 20548

Office of Personnel Mgt.
Office of Planning and Eval.
Research Mgt. Division
1900 E. Street, N.W.
Washington, DC 20415

National Institute of Mental
Health
EOLC/SMO
1200 19th Street, N.W.
Washington, DC 20208

Chief, Psychological Research
Branch
U.S. Coast Guard (G-P-1/2/TP42)
Washington, DC 20593

LIST 10 Con't
OTHER FEDERAL GOVERNMENT

Dr. Earl Potter
U.S. Coast Guard Academy
New London, CT 06320

Social & Develop. Psychology
Program
National Science Foundation
Washington, DC 20550

Div. of Indus. Science & Tech.
Innovation
Productivity Improvement
Research
National Science Foundation
Washington, D.C. 20550

LIST 11
ARMY

Technical Director
Army Research Institute
5001 Eisenhower Avenue
Alexandria, VA 22333

(3 Copies)

Head, Dept. of Behavior
Science & Leadership
U.S. Military Academy, NY
10996

LIST 12
AIR FORCE

Air University Library
LSE 76-443
Maxwell AFB, AL 36112

MAJ Robert Gregory
USAF/DFBL
U.S. Air Force Academy, CO
80840

Head, Dept. of Behavioral
Science & Leadership
U.S. Air Force Academy, CO
80840

Technical Director
AFHRL/MO(T)
Brooks AFB
San Antonio, TX 78235

LIST 13
MISCELLANEOUS

Australian Embassy
Office of the Air Attache (S3B)
1601 Massachusetts Ave., N.W.
Washington, DC 20036

Commandant, Royal Military
College of Canada
Attn: Dept. of Military
Leadership & Management
Kingston, Ontario K7L 2W3

British Embassy
Scientific Information Center
Room 509
3100 Massachusetts Ave., N.W.
Washington, D.C. 20008

National Defense Headquarters
DPAR
Ottawa, Ontario K1A 0K2

Canadian Defense Liaison Staff,
Washington
Attn: CDRD
2450 Massachusetts Ave., N.W.
Washington, D.C. 20008

Mr. Luigi Petrallo
2431 North Edgewood Street
Arlington, VA 22207

Sequential by Principal
Investor

LIST 14
CURRENT CONTRACTORS

Dr. Clayton Alderfer
Yale University
School of Org. & Mgt.
New Haven, CT 06520

Dr. Gary Bowen
SRA Corporation
800 18th Street, N.W.
Washington, D.C. 20006

Jeanne M. Brett
Northwestern University
Graduate School of Mgt.
2001 Sheridan Road
Evanston, IL 60201

Dr. Terry Connolly
Georgia Institute of Technology
School of Industrial & Systems
Engineering
Atlanta, GA 30332

Dr. Richard Daft
Texas A&M University
Department of Management
College Station, TX 77843

Dr. Randy Dunham
University of Wisconsin
Graduate School of Business
Madison, WI 53706

Dr. J. Richard Hackman
School of Organiz. & Mgt.
Box 1A, Yale University
New Haven, CT 06520

Dr. Daniel Ilgen
Department of Psychology
Michigan State University
East Lansing, MI 48824

Dr. Lawrence R. James
School of Psychology
Georgia Institute of Technology
Atlanta, GA 30332

Dr. Frank J. Landy
Penn State University
Department of Psychology
417 Bruce V. Moore Building
University Park, PA 16802

Dr. Bitt Latane
University of N. Carolina at
Chapel Hill
Manning Hall
Chapel Hill, NC 27514

Dr. Edward E. Lawler
University of S. California
Graduate School of Bus. Admin.
Texas A&M University
College Station, TX 77843

Dr. William H. Mobley
College of Business Admin.
Texas A&M University
College Station, TX 77843

Dr. Lynn Oppenheim
Wharton Applied Research Center
University of Pennsylvania
Philadelphia, PA 19104

Dr. Thomas M. Ostrom
Ohio State University
Department of Psychology
116E Stadium
404C W. 17th Avenue
Columbus, OH 43210

Dr. William G. Ouchi
University of California,
Los Angeles
Graduate School of Management
Los Angeles, CA 90024

Dr. Robert Rice
SUNY at Buffalo
Department of Psychology
Buffalo, NY 14226

Dr. Irwin G. Sarason
University of Washington
Dept. of Psychology, NI-25
Seattle, WA 98195

Dr. Benjamin Schneider
Department of Psychology
University of Maryland
College Park, MD 20742

Sequential by Principal
Investor

LIST 14
CURRENT CONTRACTORS

Dr. H. Wallace Sinaiko
Program Director, Manpower
Research & Advisory Service
Smithsonian Institution
801 N Pitt Street
Suite 120
Alexandria, VA 22314

Dr. Edgar H. Schein
Massachusetts Institute of
Technology
Sloan School of Management
Cambridge, MA 02139

Dr. Siegfried Strufert
Penn State University
Department of Behavioral
Science
Milton S. Hershey Medical
Center
Hershey, PA 17033

Dr. Barbara Saboda
Public Applied Systems Div.
Westinghouse Electric Corp.
P.O. Box 866
Columbia, MD 21044

Dr. Richard M. Steers
Graduate School of Management
University of Oregon
Eugene, OR 97403

Dr. Harry C. Triandis
Department of Psychology
University of Illinois
Champaign, IL 61820

Dr. Anne S. Tsui
Drake University
Fuqua School of Business
Durham, NC 27706

Dr. Philip Wexler
University of Rochester
Graduate School of Education
& Human Development
Rochester, NY 14627

Sabra Wooley
SRA Corporation
901 South Highland Street
Arlington, VA 22204

END

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